

April 2008

# DEPARTMENT OF HOMELAND SECURITY

Better Planning and  
Assessment Needed to  
Improve Outcomes for  
Complex Service  
Acquisitions



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Highlights of GAO-08-263, a report to congressional requesters

## Why GAO Did This Study

The Department of Homeland Security (DHS) has relied on service acquisitions to meet its expansive mission. In fiscal year 2006, DHS spent \$12.7 billion to procure services. To improve service acquisition outcomes, federal procurement law establishes a preference for a performance-based approach, which focuses on developing measurable outcomes rather than prescribing how contractors should perform services.

GAO was asked to (1) evaluate the implementation of a performance-based approach in the context of service acquisitions for major, complex investments, and (2) identify management challenges that may affect DHS's successful acquisitions for major investments, including those using a performance-based approach.

GAO reviewed judgmentally selected contracts for eight major investments at three DHS components totaling \$1.53 billion in fiscal years 2005 and 2006; prior GAO and DHS Inspector General reviews; management documents and plans; and related data, including 138 additional contracts for basic services.

## What GAO Recommends

DHS generally concurred with GAO's recommendations that DHS develop measurable standards consistently linked to well-defined requirements, evaluate acquisition outcomes for major investments, and improve data quality to help identify and assess contracting methods and outcomes.

To view the full product, including the scope and methodology, click on [GAO-08-263](#). For more information, contact John Hutton (202) 512-4841 or [huttonj@gao.gov](mailto:huttonj@gao.gov).

April 2008

# DEPARTMENT OF HOMELAND SECURITY

## Better Planning and Assessment Needed to Improve Outcomes for Complex Service Acquisitions

### What GAO Found

All service contracts for the eight major, complex investments GAO reviewed had outcome-oriented requirements; however, four of these contracts did not have well-defined requirements, a complete set of measurable performance standards, or both. These service contracts experienced cost overruns, schedule delays, or did not otherwise meet performance expectations. In contrast, service contracts for the other four investments GAO reviewed had well-defined requirements linked to measurable performance standards. Contractors had begun work on three of these four contracts and performed within budget meeting the standards. This finding is consistent with prior GAO work on service acquisitions, which has highlighted the criticality of sound acquisition planning to develop well-defined requirements and measurable performance standards to achieving desired outcomes. In the four cases that had negative outcomes, program officials identified the contractor performance weaknesses through quality assurance surveillance and took corrective actions. Prior GAO work has found that if acquisitions, including those that are performance-based, are not appropriately planned, structured, and monitored, there is an increased risk that the government may receive products or services that are over budget, delivered late, and of unacceptable quality.

In managing its service acquisitions, including those that are performance based, DHS has faced workforce and oversight challenges. Prior GAO work has highlighted the importance of having the right people with the right skills to achieve successful acquisition outcomes. Contracts for two major investments with negative cost and schedule outcomes did not have the staff needed to adequately plan and execute the contracts. Further, while representatives for several of the contracts GAO reviewed indicated that contracting and program staff worked well together, some senior acquisition representatives at the component level indicated that a lack of collaboration between these key stakeholders has been a challenge when developing and managing complex service acquisitions. In terms of oversight, component contracting and program officials said they used a performance-based approach to the maximum extent practicable; however, DHS does not have reliable data to facilitate required reporting, informed decisions, and analyzing acquisition outcomes. GAO's review also found that about half of an additional 138 contracts for basic services identified as performance-based did not have any of the elements intended to foster good outcomes: a performance work statement, measurable performance standards, and a quality assurance surveillance plan. DHS's Chief Procurement Officer (CPO)—who is responsible for departmentwide oversight of acquisitions—has several efforts under way to address some of these workforce and oversight issues. One initiative is an acquisition oversight program that is intended to assess (1) compliance with federal acquisition guidance, (2) contract administration, and (3) business judgment. However, this oversight program has not yet included an evaluation of the outcomes of contracting methods such as performance-based service acquisition.

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## Abbreviations

ACE	Automated Commercial Environment
CBP	Customs and Border Protection
CPO	Chief Procurement Officer
DHS	Department of Homeland Security
FAR	Federal Acquisition Regulation
FEMA	Federal Emergency Management Agency
FPDS-NG	Federal Procurement Data System-Next Generation
ICE	Immigration and Customs Enforcement
NPI	National Prime Integration
OFPP	Office of Federal Procurement Policy
SBInet	Secure Border Initiative Network
TSA	Transportation Security Administration
TWIC	Transportation Worker Identification Credential

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**United States Government Accountability Office  
Washington, DC 20548**

April 22, 2008

The Honorable Joseph I. Lieberman  
Chairman  
The Honorable Susan M. Collins  
Ranking Member  
Committee on Homeland Security and Governmental Affairs  
United States Senate

The Honorable Daniel K. Akaka  
Chairman  
The Honorable George V. Voinovich  
Ranking Member  
Subcommittee on Oversight of Government Management, the  
Federal Workforce and the District of Columbia  
Committee on Homeland Security and Governmental Affairs  
United States Senate

The Honorable Bennie G. Thompson  
Chairman  
Committee on Homeland Security  
House of Representatives

In fiscal year 2006, the Department of Homeland Security (DHS) spent \$12.7 billion on services, representing more than 80 percent of its total procurement spending for that year. DHS has relied on service acquisitions to meet its expansive homeland security mission. However, prior GAO work has found that if acquisitions are not appropriately planned, structured, and monitored, there is an increased risk that the services provided will not fulfill intended acquisition outcomes or, ultimately, meet government needs.<sup>1</sup>

To help improve service acquisition outcomes, federal procurement policy calls for agencies to use a performance-based approach to the maximum extent practicable. This approach includes: a performance work statement that describes outcome-oriented requirements, measurable performance standards, and quality assurance surveillance. These characteristics, if properly implemented, can help ensure that the services meet cost,

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<sup>1</sup> GAO, *Defense Acquisitions: Tailored Approach Needed to Improve Service Acquisition Outcomes*, GAO-07-20 (Washington, D.C.: Nov. 9, 2006).

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schedule, and performance requirements. Since this concept was introduced in the 1990s, it has become widely accepted as a sound acquisition approach.

Despite its governmentwide acceptance, concerns have been raised about how well agencies are using a performance-based approach, particularly for complex or major investments. Given the significant amount of DHS spending on services and its critical mission, you asked us to (1) evaluate the implementation of a performance-based approach in the context of service acquisitions for major, complex investments; and (2) identify management challenges that may affect DHS's successful implementation of service acquisitions for major investments, including those using a performance-based approach.

To conduct our work, we focused on the Coast Guard, Customs and Border Protection (CBP), Immigration and Customs Enforcement (ICE), and the Transportation Security Administration (TSA)—four of the five DHS components reporting the highest obligations for performance-based service acquisitions in fiscal years 2005 and 2006.<sup>2</sup> To evaluate DHS's implementation of a performance-based approach in the context of service acquisitions for major investments,<sup>3</sup> we judgmentally selected eight major investments at the Coast Guard, CBP, and TSA<sup>4</sup> based on size and complexity, and reviewed actions for one performance-based service contract associated with each investment.<sup>5</sup> These contracts had a combined estimated value of \$1.53 billion and included services provided in the acquisition and sustainment phases of the investments.<sup>6</sup> We assessed these contracts against acquisition regulations and policy and interviewed contracting and program management staff. Performance-based service

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<sup>2</sup>We excluded the Federal Emergency Management Agency (FEMA) because of atypical fiscal year 2006 spending on Gulf Coast hurricane relief efforts.

<sup>3</sup>DHS has categorized major investments as Levels 1 and 2 and Level 3 (information technology). For the purposes of our review, we focused on Level 1 investments. A Level 1 major investment is defined in DHS Management Directive 1400 as an investment with greater than \$100 million in total acquisition costs including planning, or for information technology investments, a life-cycle cost greater than \$200 million.

<sup>4</sup>ICE officials told us that none of their major investments used a performance-based approach.

<sup>5</sup>We reviewed either the contract or selected orders on the contract.

<sup>6</sup>DHS's investment review process includes three phases: pre-acquisition, acquisition, and sustainment. The acquisition phase includes systems development, and the sustainment phase includes operations and maintenance.

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acquisitions were difficult to identify and were not clearly distinct from other service acquisitions because they did not always include all required elements. Therefore, we reviewed prior GAO reports and DHS Inspector General reports to provide a broader context on DHS's major service acquisitions.

To identify management challenges that may affect DHS's successful implementation of service acquisitions for major investments, we analyzed management documents and plans; staffing data; and oversight mechanisms, including the Federal Procurement Data System-Next Generation (FPDS-NG), the governmentwide database for procurement spending. From FPDS-NG, we judgmentally selected 138 contracts for primarily basic services coded as performance-based and awarded in fiscal years 2005 or 2006 at Coast Guard, CBP, ICE, and TSA with obligations greater than \$1 million dollars and asked the components to verify whether these contracts included the required performance-based elements. Finally, we interviewed contracting and program management staff and DHS Chief Procurement Office (CPO) representatives and met with representatives from the Office of Management and Budget's Office of Federal Procurement Policy (OFPP). For more information on our scope and methodology, see appendix I.

We conducted this performance audit from January 2007 to April 2008 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

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## Results in Brief

All service contracts for the eight major, complex investments we reviewed had outcome-oriented requirements, but the requirements were not always well-defined. Four of the eight contracts we reviewed did not have well-defined requirements, or a complete set of measurable performance standards, or both at the time of contract award or start of work. These service contracts experienced cost overruns, schedule delays, or did not otherwise meet performance expectations. In contrast, service contracts for the other four investments had well-defined requirements linked to measurable performance standards. Contractors had begun work on three of these four contracts and performed within budget meeting the standards. This finding is consistent with our prior work on service contracting, which has highlighted the criticality of sound acquisition planning to develop stable, well-defined requirements and measurable

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performance standards to achieving desired outcomes. Components conducted quality assurance surveillance for the contracts we reviewed. For the four contracts that had negative outcomes, surveillance helped DHS components to identify contractor performance weaknesses and corrective actions were taken. Prior GAO work has found that if acquisitions, including those that are performance-based, are not appropriately planned, structured, and monitored, there is an increased risk that the government may receive products or services that are over budget, delivered late, and of unacceptable quality.

In managing its service acquisitions, including those that are performance-based, DHS has faced workforce and oversight challenges. Our prior work has highlighted the importance of having the right people with the right skills to achieve successful acquisition outcomes. Contracts for two of the eight major investments we reviewed that had negative cost or schedule outcomes did not have the staff needed to adequately plan and execute the contracts. Further, while representatives for several of the contracts we studied indicated contracting and program staff worked together effectively, at the component level, senior acquisition representatives indicated that a lack of collaboration between the program and contracting offices in general has been challenging. In terms of oversight, DHS component contracting and program staff told us they used a performance-based approach to the maximum extent practicable; however, the department does not have reliable data to facilitate reporting or perform management assessments of these acquisitions. Moreover, while the CPO has implemented a departmentwide acquisition oversight program, the CPO has not performed management assessments of performance-based service acquisitions. Our review of an additional 138 contracts for primarily basic services found that about half of the contracts identified as performance-based in FPDS-NG did not have any of the three elements: a performance work statement, measurable performance standards, and a quality assurance surveillance plan, which are intended to foster good outcomes. Inaccurate data limit DHS's visibility over service acquisitions and the department's ability to make informed acquisition management decisions. DHS's CPO has several efforts under way to address departmentwide workforce and oversight challenges. One initiative is an acquisition oversight program that is intended to assess (1) compliance with federal acquisition guidance, (2) contract administration, and (3) business judgment. However, this oversight program has not yet included an evaluation of the outcomes of contracting methods such as performance-based service acquisition.

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To increase DHS's ability to improve outcomes for its service acquisitions, including those that are performance-based, we are recommending that the Secretary of Homeland Security take several actions. These actions include improving acquisition planning for requirements for major, complex investments to ensure they are well-defined, and developing consistently measurable performance standards linked to those requirements; systematically evaluating the outcomes of major investments and relevant contracting methods at a departmentwide level; and improving the quality of FPDS-NG data so that DHS can more accurately identify and assess the use and outcomes of various contracting methods. In written comments on a draft of this report, DHS generally concurred with our recommendations and provided some information on efforts under way to improve acquisition management. The department's comments are reprinted in appendix II. OMB did not comment on the findings or conclusions of this report. DHS and OMB each provided technical comments, which we incorporated as appropriate and where supporting documentation was provided.

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## Background

Over the last decade, the use of federal service contracting has increased and now accounts for over 60 percent of federal procurement dollars spent annually. Prior GAO work has found that if acquisitions are not appropriately planned, structured, and monitored, there is an increased risk that the services provided will not fulfill intended acquisition outcomes or, ultimately, meet agency needs.

A performance-based approach, if successfully implemented, can help improve service acquisition outcomes. This concept—introduced during the 1990s—represented a shift in emphasis from specifying methods in which contracted work should be performed to specifying acquisition outcomes. In 2000, federal procurement law established a performance-based approach as the preferred acquisition method for services.<sup>7</sup> The FAR requires all performance-based service acquisitions to include:

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<sup>7</sup>Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001, Pub. L. No. 106-398 § 821(a) (2000) required that the Federal Acquisition Regulation (FAR) be revised to establish a preference for the use of a performance-based approach in the acquisition of services, which was done in FAR 37.102(a), providing that performance-based acquisition is the preferred method for acquiring services and generally is to be used to the maximum extent practicable.

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- a performance work statement that describes outcome-oriented requirements in terms of results required rather than the methods of performance of the work;
- measurable performance standards describing how to measure contractor performance in terms of quality, timeliness, and quantity; and
- the method of assessing contract performance against performance standards, commonly accomplished through the use of a quality assurance surveillance plan.<sup>8</sup>

In addition, federal procurement law established a preference for using firm fixed-price contracts or task orders—where a specified price is paid regardless of the contractor’s incurred costs—when using a performance-based approach for service acquisitions.<sup>9</sup> A performance-based acquisition approach also calls for greater collaboration among procurement and program representatives throughout the contract period and often requires more time for acquisition planning and management than other contracting methods. Agencies may also involve the contractor in the multi-functional team responsible for developing performance-based acquisition planning documents to leverage the contractor’s technical expertise. Including stakeholders with varied knowledge and skills enables acquisition teams to determine at the earliest point possible that all aspects of the acquisition are necessary, executable, and tailored to the transaction’s risk level. Regardless of the contracting method, focusing on outcomes and collaboration among multiple stakeholders in the contracting process has been acknowledged as sound contract management. Other factors, such as pressure to get programs up and running, additional external requirements, and technological challenges also impact the ability to achieve good acquisition outcomes.

A 1998 OFPP study on performance-based contracts—based largely on contracts for basic services, such as janitorial or maintenance services—showed that a number of anticipated benefits had been achieved: reduced acquisition costs, increased competition for contracts, and improved

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<sup>8</sup>FAR 37.601; FAR 37.602(b); FAR 37.604. A fourth element, performance incentives, is required where appropriate.

<sup>9</sup>Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001, Pub. L. No. 106-398, § 821(a) (2000); FAR 37.102(a).

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contractor performance.<sup>10</sup> However, our prior work and the work of others has found that implementing a performance-based approach is often more difficult for complex acquisitions because agencies begin with requirements that are less stable, making it difficult to establish measurable outcomes. OFPP has noted in policy that certain types of services, such as research and development, may not lend themselves to outcome-oriented requirements.<sup>11</sup> CPO representatives also have noted that defining outcome-oriented requirements and measurable performance standards may be more challenging for certain types of services, such as research and development or professional and management support services. Further, complex service contracts, such as those for information technology, may need to have requirements and performance standards continually refined throughout the life-cycle of the acquisition for a contractor to deliver a valuable service over an extended period of time.

To encourage agencies to apply a performance-based approach to service acquisitions, the Office of Management and Budget established governmentwide performance targets: 20 percent of eligible service contract dollars for fiscal year 2002, 40 percent for fiscal year 2005 and fiscal year 2006, 45 percent for fiscal year 2007, and 50 percent for fiscal year 2008.

In 2007, the congressionally mandated Acquisition Advisory Panel<sup>12</sup> reported on the implementation of a performance-based approach and concluded that agencies were not clearly defining requirements, not identifying meaningful quality measures, not effectively managing the contract, and had limited data to make informed decisions. The panel made recommendations to improve application of the performance-based approach in three areas: goal setting and management, guidance for acquisition staff, and data quality.<sup>13</sup> For example, the panel recommended

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<sup>10</sup>Office of Management and Budget, Office of Federal Procurement Policy, *A Report on the Performance-Based Service Contracting Pilot Project*, May 1998.

<sup>11</sup>Office of Federal Procurement Policy Memorandum, “Increasing the Use of Performance-based Service Acquisitions,” September 7, 2004.

<sup>12</sup>Services Acquisition Reform Act of 2003, Title XIV, National Defense Authorization Act for Fiscal Year 2004, Pub. L. No. 108-136, § 1423 (2003); National Defense Authorization Act for Fiscal Year 2006, Pub. L. No. 109-163, § 843 (2006) (extended the deadline for the Panel’s report by 6 months).

<sup>13</sup>Report of the Acquisition Advisory Panel to the Office of Federal Procurement Policy and the United States Congress, January 2007.

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that the Office of Management and Budget adjust the governmentwide target to reflect individual agency assessments and plans.

In May 2007, OFPP issued a memo directing agencies, at a minimum, to meet targets established and report on them in their management plans. In response, DHS's CPO, who is responsible for creating departmentwide policies and processes for managing and overseeing the acquisition function, established a performance-based target of 25 percent for fiscal year 2007, increasing to 40 percent by fiscal year 2010, that was included in DHS's Performance-Based Management Plan. Meeting these targets is a responsibility shared between the CPO and the component heads, in accordance with DHS' system of dual accountability for managing the acquisition function.<sup>14</sup>

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## Definition of Requirements and Performance Standards Influenced Contract Outcomes

Requirements definition and performance standards influenced outcomes for performance-based contracts associated with eight major, complex investments. While all eight contracts for the investments we reviewed had outcome-oriented requirements, the requirements were not always well-defined.<sup>15</sup> Further, contracts for half of the investments did not have a complete set of measurable performance standards. Major investments with contracts that did not have well-defined requirements or complete measurable performance standards at the time of contract award or start of work experienced either cost overruns, schedule delays, or did not otherwise meet performance expectations. Conversely, contracts with well-defined requirements linked to measurable performance standards delivered results within budget and provided quality service. This finding is consistent with our body of work on service contracting, which has

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<sup>14</sup>Responsibility for the acquisition function at DHS is shared between the CPO and each DHS component head. Eight DHS components have internal procurement offices with a Head of Contracting Activity (HCA) who reports directly to the component head and is accountable to the CPO. The eight components are: Coast Guard, CBP, FEMA, Federal Law Enforcement Training Center, ICE, Office of Procurement Operations, Secret Service, and TSA. The HCA for each component has overall responsibility for the day-to-day management of the component's acquisition function. See GAO, *Department of Homeland Security: Progress and Challenges in Implementing the Department's Acquisition Oversight Plan*, GAO-07-900 (Washington, D.C.: June 2007).

<sup>15</sup>In using the performance-based approach, sound contracting practices dictate that required contract outcomes or requirements be well-defined, providing clear descriptions of results to be achieved. FAR 2.101 specifically provides that a performance work statement for performance-based acquisitions describe the required results in clear, specific, and objective terms with measurable outcomes.

emphasized the importance of sound acquisition planning to develop well-defined requirements and measurable performance standards to achieve desired results. Table 1 summarizes our analysis of the requirements, performance standards, and outcomes for the eight performance-based contracts we reviewed. Component program staff conducted surveillance for these contracts, and in the four cases that had negative outcomes, identified less than expected performance and took action.

**Table 1: Key Characteristics of Eight Performance-Based Service Contracts**

Major investment by component	Service	Well-defined requirements <sup>a</sup>	Measurable performance standards <sup>b</sup>	Outcomes
<b>Coast Guard</b>				
Response Boat Medium	Research, analysis, and financial and information management	●	●	Contractor submitted all required documentation on time; met project management quality standards; and maintained electronic archiving and restoration standards.
<b>Customs and Border Protection</b>				
Automated Commercial Environment	Trade systems software development (task order 23)	○	●	Costs increased by 40 percent (\$21.1 million). More than a year behind schedule; unplanned software redesign.
National Prime Integration	Maintenance of equipment used at border crossings, airports, and seaports	●	●	Costs increased by 53 percent (\$24 million). Maintenance wait times were longer than planned.
SBInet	Project 28 border surveillance systems development and fielding	○	●	DHS rejected initial acceptance of Project 28. The project was delayed 8 months with final acceptance in February 2008. DHS noted that the contractor met the requirements, but the project did not fully meet DHS's needs and the technology will not be replicated in future SBInet development.
<b>Transportation Security Administration</b>				
Electronic Baggage Screening Program	Maintenance for explosive trace detection machines	●	●	Contractor exceeded the performance standard for machine downtime with a score 1 hour less than required and operated at cost through the second quarter of fiscal year 2007.
Screening Partnership Program	Passenger screening services at one airport	●	●	Contractor exceeded most performance standards; for example: threat detection performance and false alarm rates exceeded the quality standards. Contractor had cost underrun of 2.2 percent (\$677,000).

Major investment by component	Service	Well-defined requirements <sup>a</sup>	Measurable performance standards <sup>b</sup>	Outcomes
Secure Flight	Maintaining database used to screen airline passenger data	●	◎	Initial contractor planning reports were inadequate; system experienced operational downtime; surveillance reports identified poor contractor performance. Contractor generally met time frames and delivered within budget.
Transportation Worker Identification Credential	Issuing identification credentials to maritime workers	●	●	Outcomes not available at the time of our review.

Legend: ● contract met or mostly met the criteria; ◎ contract partially met the criteria; ○ contract did not meet the criteria

Source: GAO analysis.

<sup>a</sup>Well-defined requirements should provide clear descriptions of results to be achieved at the time of the award or start of work and primary requirements should not change substantially following contract award.

<sup>b</sup>The set of measurable performance standards for a contract enables the government to assess all aspects of the contractor's work in terms of quality, timeliness, and quantity. The contract's performance standards are also linked to the requirements.

## Contracts That Lacked Stable, Well-Defined Requirements, Complete Measurable Performance Standards, or Both Experienced Negative Outcomes

Although all contracts we reviewed for the eight major, complex investments had outcome-oriented requirements, contracts for four investments—two for systems development and two for operations and maintenance—did not have stable and well-defined requirements, a full complement of measurable performance standards, or both. These four contracts experienced schedule delays, cost increases, or other negative outcomes. Prior GAO and DHS Inspector General work on other DHS major investments have similarly found that when requirements were not well-defined, performance did not meet expectations. Our work has found that performance-based acquisitions must be appropriately planned and structured to minimize the risk of the government receiving services that are over cost estimates, delivered late, and of unacceptable quality.<sup>16</sup> Specifically, we have emphasized the importance of clearly defined requirements to achieving desired results and measurable performance standards to ensuring control and accountability.<sup>17</sup>

<sup>16</sup>GAO, *Coast Guard: Observations on the Fiscal Year 2008 Budget, Performance, Reorganization, and Related Challenges*, GAO-07-489T (Washington D.C.: Apr. 18, 2007).

<sup>17</sup>GAO-07-20; and GAO, *Coast Guard: Status of Efforts to Improve Deepwater Program Management and Address Operational Challenges*, GAO-07-575T (Washington D.C.: Mar. 8, 2007).

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Systems Development Efforts	<p>Two CBP systems development contracts lacked both well-defined requirements and measurable performance standards prior to the start of work. The first—ACE Task Order 23 project, a trade software modernization effort under a letter contract<sup>18</sup>—was originally estimated to cost \$52.7 million over a period of approximately 17 months. DHS contracting representatives told us that some technical requirements were not fully defined within the original scope of work, and some new software requirements were added after contract award. Because many requirements were not fully defined in advance of the contract's award, the program was unable to establish clear, measurable performance standards and valid cost or schedule baselines for assessing contractor performance. The need to redefine contract requirements for the ACE program contributed to significant schedule delays and cost increases.<sup>19</sup> ACE Task Order 23 was completed at the end of October 2007 with a project cost increase of approximately \$21.1 million, or 40 percent, over the original estimate. As of April 2008, DHS reported that some portions of the work were delayed to better define requirements, and the final portion of the software was projected to be completed in June 2009, about 26 months later than planned.</p>
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The second, CBP's Secure Border Initiative Network (SBInet) Project 28 contract, was intended to help secure a section of the United States-Mexico border using a surveillance system. Project 28 was planned to be SBInet's proof of concept, as well as the first increment of the fielded SBInet system. CBP awarded the Project 28 contract before the overall SBInet operational requirements and system specifications were finalized. Additional design requirements for equipment installation were added after contract award. DHS's Inspector General reported in February 2007—more than 3 months after the Project 28 contract was awarded—that CBP had not properly defined SBInet's operational requirements and needed to do so quickly to avoid rework of the contractor's systems engineering. Several performance standards were not clearly defined to isolate the contractor's performance from that of CBP employees, making it difficult to determine whether any problems were due to the contractor's system design, CBP employees, or both. Other performance standards were difficult to measure because CBP did not plan a controlled

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<sup>18</sup>A letter contract authorizes a contractor to begin work and incur costs before reaching a final agreement on contract terms and conditions, including price.

<sup>19</sup>GAO, *Information Technology: Improvements for Acquisition of Customs Trade Processing System Continue, but Further Efforts Needed to Avoid More Cost and Schedule Shortfalls*, GAO-08-46 (Washington, D.C.: Oct. 25, 2007).

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operational test, which is a test conducted in a separate, instrumented test area that resembles the border environment. CBP planned to conduct operational testing, which is less rigorous, after the system was fully accepted. As a result, it was not clear how CBP intended to measure compliance with the Project 28 standard for probability of detecting persons attempting to illegally cross the border. Another standard stated that the acceptable level of contractor performance would be determined in the future. Project 28, planned as an 8-month, \$20 million firm fixed-price effort,<sup>20</sup> did not meet the June 2007 delivery date, and in August 2007 CBP notified the contractor that it did not approve delivery because the system failed the initial acceptance test. DHS conditionally accepted the system in December 2007 and fully accepted it in February 2008. DHS noted that the contractor met the requirements; however, Project 28 resulted in a product that did not fully meet user needs and its design will not be used as a basis for future SBInet development.<sup>21</sup> In addition, DHS officials have stated that much of the Project 28 system will be replaced by new equipment and software.

## Operations and Maintenance Efforts

Performance-based contracts for two other major investments—CBP's National Prime Integration (NPI) contract and a TSA Secure Flight contract—included well-defined requirements but did not have a full complement of measurable performance standards. These operations and maintenance contracts had less than expected contractor performance or significant cost increases.

CBP's NPI contract for maintenance of inspection, detection, and surveillance devices at border crossings, airports, and seaports included well-defined requirements for conducting equipment deployment, maintenance, and replacement as well as engineering and logistics support. For example, the requirements for equipment corrective maintenance specify the contractor shall conduct maintenance, including parts and labor, as a result of equipment or system failure. However, the contract did not incorporate performance standards for post-maintenance inspections and other standards needed to fully assess the quality of equipment maintenance performed by the contractor. CBP representatives acknowledged the need for additional measurable performance standards

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<sup>20</sup>The contractor testified in October 2007 before subcommittees of the House Homeland Security Committee, that it spent approximately double the original contract amount. Because this is a firm fixed price contract, absent changes or delays created by the government, CBP is not responsible for these additional costs.

<sup>21</sup>GAO, *Secure Border Initiative: Observations on the Importance of Applying Lessons Learned to Future Projects*, GAO-08-508T (Washington D.C.: Feb. 27, 2008).

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addressing quality of equipment maintenance to help ensure good contractor performance. While CBP does not plan to incorporate additional performance measures until September 2008, CBP revised the contract documentation in December 2007 to emphasize program management. Regarding contract outcomes, during the last year of the contract, costs were about \$24 million, or 53 percent, higher than original estimates, in part because of increases in the quantity of equipment being supported. Customer wait times have been much longer than expected for equipment maintenance, and wait time standards have been revised to between 24 and 96 hours depending on the type of equipment. Average wait times from September 2006 to September 2007 were between 118 and 106 hours, not meeting the revised standard.

A TSA Secure Flight contract for operations and maintenance of the federal terrorist watchlist database, which is used to screen airline passenger data, also experienced less than expected outcomes. The contract we reviewed contained well-defined requirements and measurable performance standards for operation, maintenance, repair, and upgrade of the system. For example, the requirements specify that the contractor shall provide on-site technical and management support. Although the contract had some measurable performance standards, the contract did not have the full complement of standards needed to monitor performance, according to program representatives. For example, one standard required no operational system downtime and the contractor was not always able to meet this standard. After we reviewed the performance standards, program representatives subsequently incorporated some additional, improved standards to provide increased visibility over how well the contractor responds to system outages. These standards are designed to measure the time required to switch from the primary to the secondary system for planned and unplanned system outages. Additionally, according to program and contracting representatives, the contractor initially delivered inadequate plans for staffing and operations, and did not always meet the operational system downtime requirement, but was within budget and generally met established time frames.

#### Prior Reviews Have Similar Findings

The inability to manage requirements and meet cost, schedule, and performance objectives is not limited to the components and systems we reviewed. Several prior GAO and DHS Inspector General reviews of major DHS investments using a performance-based approach point to such shortcomings. For example:

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- In June 2007, we reported that DHS's performance-based contract for a departmentwide financial management system, eMerge2, did not have clear or complete requirements.<sup>22</sup> Consequently, the program experienced schedule delays and less than acceptable contractor performance and was ultimately terminated after a \$52 million investment.
- In March 2007, we reported that the Coast Guard's performance-based contract for replacing or modernizing its fleet of vessels and aircraft, Deepwater, had requirements that were set at unrealistic levels and then were frequently changed.<sup>23</sup> This resulted in cost escalation, schedule delays, and reduced contractor accountability. The DHS Inspector General has also indicated that numerous opportunities exist for DHS to make better use of sound practices, such as well-defined requirements. The DHS Inspector General recently concluded that Deepwater had poorly defined requirements and inadequate oversight that contributed to ineffective or inefficient results and increased costs.<sup>24</sup>
- In February 2006, DHS's Inspector General reported that TSA's Information Technology Managed Services contract had unclear requirements that contributed to negative outcomes, including an 85 percent increase to nearly \$834 million in DHS's 3-year cost estimate and a failure to deliver expected information technology capabilities.<sup>25</sup>

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### Contracts with Well-Defined Requirements and Measurable Performance Standards Experienced Positive Outcomes

Contracts for four other major investments we reviewed—one at the Coast Guard and three at TSA—had well-defined requirements and measurable performance standards. These requirements did not significantly change in scope after contract award. Contracts for program management support for the Response Boat-Medium program, maintenance of the Electronic Baggage Screening Program, and passenger and baggage screening for the

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<sup>22</sup>GAO, *Homeland Security: Departmentwide Integrated Financial Management Systems Remain a Challenge*, GAO-07-536 (Washington, D.C.: June 21, 2007).

<sup>23</sup>GAO-07-575T.

<sup>24</sup>Department of Homeland Security Inspector General, *Major Management Challenges Facing the Department of Homeland Security*, OIG-08-11 (January 2008).

<sup>25</sup>Department of Homeland Security Inspector General, *Transportation Security Administration's Information Technology Managed Services Contract*, OIG-06-23 (February 2006).

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Screening Partnership Program met the performance standards and were within budget. We were unable to evaluate outcomes for the fourth contract associated with the Transportation Worker Identification Credential (TWIC) program because key work under the contract was delayed.

Program management support and related services we reviewed for the Coast Guard's Response Boat-Medium investment had well-defined requirements, and two of three performance standards were measurable. The contracted services included research and project support, financial and information management, and Web site support. The requirements for research and project support clearly stated the contractor was to provide project planning and execution support; documentation, database, and internet support; and administrative support. The performance standards were linked directly to the requirements. The two measurable standards were for timely submission of documents and electronic records keeping. The Coast Guard did not indicate how it would measure contractor performance for the third standard addressing research analysis and advisory services. Coast Guard representatives said the contractor had fulfilled the requirements within budget and on time, but did not document contractor performance.

A maintenance contract for TSA's Electronic Baggage Screening Program also had well-defined program management and technical requirements. For example, the requirements for maintenance clearly stated the contractor should perform preventative and corrective maintenance on detection machines, providing specific definitions for each of these tasks. The contract also had measurable performance standards linked directly to the technical requirements. Specifically, program representatives used the 'mean downtime' performance standard to calculate the average number of hours a machine was unable to perform its mission during a 16-hour day as a means of evaluating how quickly the contractor restored the detection equipment to operation. For fiscal years 2006 through 2007, the contractor met or exceeded the mean downtime performance standard, which has become more rigorous each year. Additionally, the contractor has stayed within the budget established in the firm fixed-price contract. The current maintenance contract improved TSA's ability to manage costs. Previously, DHS's Inspector General found TSA's initial electronic baggage screening maintenance contracts did not follow sound contracting practices. The Inspector General recommended TSA take

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action to control costs by modifying the type of contract used.<sup>26</sup> TSA subsequently withdrew the initial maintenance contract and issued four new contracts, one of which we reviewed, for maintenance of detection machines at over 400 airports in the United States.

Contracted security services at the San Francisco International Airport for the Screening Partnership Program also had well-defined requirements, and all measurable performance standards corresponded to contract requirements. This was an improvement from our prior reviews of TSA's Screening Partnership Program, which found that TSA had not finalized performance-based planning documentation, including developing measurable performance standards.<sup>27</sup> The contract we reviewed contained well-defined requirements for gate, checkpoint, and baggage screening; basic preventative and corrective maintenance; initial, recurrent, and remedial training; and recruiting and supervising screeners. For example, the requirements for gate, checkpoint, and baggage screening services clearly stated the contractor should use technology and staff to prevent prohibited items from entering sterile areas of the airport and should work to minimize customer complaints while addressing in a timely manner any complaints received. The performance standards assessed how often screeners could successfully detect test images of prohibited items in checked baggage; the percentage of audited records and inspected equipment, property, and materials that were well-kept, operational, and recorded on maintenance logs; and whether all new hires received the required training before assuming their screening responsibilities. In terms of expected outcomes, the contractor achieved a 2.2 percent cost underrun during the first 5 months of the contract and exceeded most requirements.

While the worker enrollment services contract for TSA's TWIC program for a tamper-resistant biometric credential for maritime workers included well-defined requirements and measurable performance standards, we were unable to review the contract's outcomes as key work under the

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<sup>26</sup>Department of Homeland Security Inspector General, *Evaluation of TSA's Contract for the Installation and Maintenance of Explosive Detection Equipment at United States Airports*, OIG-04-44 (September 2004).

<sup>27</sup>GAO, *Aviation Security: Preliminary Observations on TSA's Progress to Allow Airports to Use Private Passenger and Baggage Screening Services*, GAO-05-126 (Washington, D.C.: Nov. 19, 2004); and GAO, *Aviation Security: Progress Made to Set Up Program Using Private-Sector Airport Screeners, but More Work Remains*, GAO-06-166 (Washington, D.C.: Mar. 31, 2006).

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contract was delayed.<sup>28</sup> Prior GAO work found that during the TWIC program's prototype phase, the program contract costs doubled due to expanded requirements after contract award.<sup>29</sup> The contract we reviewed contained well-defined requirements for developing enrollment centers; providing information technology maintenance services; and setting up help desk services for TSA employees, maritime workers, and other TWIC stakeholders. For example, the requirements for enrollment centers clearly stated the contractor was to provide maintenance services; infrastructure support such as work stations; and operations, management, and administrative support. Moreover, the contract's performance standards were measurable and linked to the requirements. For example, the program developed performance standards assessing the amount of time the contractor took to respond to and resolve each caller's issue and to enroll maritime workers in the program. By using measurable performance standards linked to the contract's requirements, TSA has improved its ability to identify and address performance issues and avoid negative outcomes.

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### Quality Assurance Surveillance Identified Less Than Expected Performance

Agencies are required to ensure that contractors are providing timely and quality services and mitigate contractor performance problems. The FAR indicates that surveillance plans provide for contract quality assurance by specifying contractor work requiring surveillance and the method of surveillance.<sup>30</sup> While not all of the contracts we reviewed had a quality assurance surveillance plan in place at contract award, in all cases DHS components monitored and assessed contractor performance against the contract performance standards. In the four cases where we found poor contract outcomes, program staff identified and documented less than expected performance and took action as shown in table 2.

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<sup>28</sup>TSA awarded a contract in January 2007 to issue biometric credentials to maritime workers. TSA officials told us it took more time than originally planned to bring the TWIC prototype enrollment system into alignment with new government security standards. During the course of our review, the schedule to initiate work was delayed from March to October 2007.

<sup>29</sup>GAO, *Transportation Security: DHS Should Address Key Challenges before Implementing the Transportation Worker Identification Credential Program*, GAO-06-982 (Washington, D.C.: Sept. 29, 2006).

<sup>30</sup>FAR 37.604 and 46.401.

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**Table 2: Less Than Expected Performance Identified through Surveillance and Action Taken**

Major investment by component	Service	Performance	Action taken
<b>Customs and Border Protection</b>			
Automated Commercial Environment Task Order 23	Developing trade systems software	Costs increased by 40 percent (\$21.1 million) and contractor did not achieve project milestones according to schedule	Contractor did not earn full incentive fees
National Prime Integration	Maintaining equipment used at border crossings, airports, and seaports	Longer than expected maintenance wait times	Contractor did not earn full award fees
SBInet Project 28	Developing and fielding border surveillance systems	System failed the initial performance test and project was delayed 8 months with final acceptance in February 2008	Contractor did not receive 20 percent of contract payment and DHS did not initially accept the system
<b>Transportation Security Administration</b>			
Secure Flight	Maintaining database used to screen airline passenger data	Inadequacies identified in initial contractor planning reports provided to TSA; operational downtime; and other forms of less than expected performance	Contractor did not earn full award fees and DHS worked with contractor to increase staffing levels

Source: GAO analysis.

In two of these cases—ACE and Secure Flight—program representatives identified less than expected performance through the use of a quality assurance surveillance plan. In contrast, the NPI program office told us they did not have a quality assurance surveillance plan for the first year of the contract, but instead relied on award fee plan criteria to assess contractor performance. The SBInet program office monitored Project 28's execution through other means, such as program reviews, technical interchange meetings, status and issue reporting, and observation of contractor testing. Our prior work has found that if performance-based acquisitions are not appropriately planned and structured, including surveillance planning, there is an increased risk that the government may receive products or services that are over budget, delivered late, and of unacceptable quality.<sup>31</sup>

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<sup>31</sup>GAO-07-489T.

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## DHS Has Faced Workforce and Oversight Challenges in Managing Its Service Acquisitions

Insufficient workforce and limited oversight of acquisition outcomes has presented significant challenges for DHS in implementing its service acquisitions, including those that use a performance-based approach. Having adequate staff who collaborate across functions, and reliable data are among the key success factors that we have identified for achieving intended outcomes for all types of service acquisitions.<sup>32</sup> However, DHS continues to lack contracting and program staff with the expertise needed to adequately plan or monitor contractor execution of requirements, and some component acquisition representatives indicated a lack of collaboration between the program and contracting offices. In terms of oversight, inaccurate data has limited departmentwide visibility into DHS's service acquisitions, including those that are performance-based.

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## Sufficient and Experienced Staff Are Needed to Ensure Successful Service Acquisitions

Our prior work has highlighted the importance of having the right people with the right skills to achieve successful acquisition outcomes.<sup>33</sup> However, DHS has not fully defined the types of positions or numbers of staff for each position for its acquisition workforce. CPO representatives identified acquisition staff shortages as one of the primary obstacles to successful acquisitions, including those that are performance-based. CPO representatives have established departmentwide interim staffing goals addressing minimum and optimal staffing levels for contract specialists for each component. As of February 2008, CPO representatives reported that approximately 61 percent of the minimum required staff, and 38 percent of the optimal level of contract specialists, were in place.

Insufficient contracting and program office staff was a challenge for two of the investments we reviewed—SBInet and ACE. In these two cases, contracts were not on schedule or contractor performance was otherwise less than expected. In November 2006—the month following SBInet Project 28's contract award—the DHS Inspector General reported that DHS did not have the capacity needed to effectively plan, oversee, and execute the SBInet investment; administer its contracts; and control costs and schedule.<sup>34</sup> For example, SBInet had a shortage of engineers, logistical personnel, contracting officers, and cost analysts. In January 2007, DHS's Investment Review Board confirmed there were critical staffing shortages

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<sup>32</sup>GAO, *Framework for Assessing the Acquisition Function at Federal Agencies*, GAO-05-218G (Washington, D.C.: Sept. 2005), and GAO-07-20.

<sup>33</sup>GAO-07-20.

<sup>34</sup>Department of Homeland Security Inspector General, *Risk Management Advisory for the SBInet Program Initiation*, OIG-07-07 (November 2006).

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in the SBInet investment, including Project 28. In February 2007, we reported that SBInet representatives expressed concern about finding an adequate number of program office staff with the right expertise. We subsequently reported in February 2008 that the SBInet program office staffing level had reached 305 positions out of a staffing goal of 470 by the end of fiscal year 2008.<sup>35</sup> CBP representatives expressed concerns that staffing shortfalls could affect the agency's capacity to provide adequate contractor oversight. ACE program officials also indicated they were significantly understaffed, which prevented them from fully defining the requirements for ACE Task Order 23. Officials told us the investment had less than 10 percent of the staff they needed at the time the requirements were being defined.

In its fiscal year 2007 departmentwide performance-based service acquisition management plan, DHS also emphasized the importance of filling program and contracting vacancies with staff experienced in developing and implementing the required elements of performance-based acquisitions. Contracting and program management staff for TSA's Screening Partnership and Electronic Baggage Screening programs stated that their previous experience helped them to develop well-defined requirements and measurable performance standards. In these cases, contracts were on budget and contract performance met or exceeded the government's requirements. Representatives from Coast Guard, CBP, and TSA noted success in supplementing expertise through acquisition support offices, also known as centers of excellence, to improve acquisition planning. Component representatives told us this support could help acquisition staff improve the quality of contract documents, including performance work statements. These support offices can serve as a force multiplier, allowing their high-demand skill-sets to be used across contracts and helping to improve contracting outcomes across the component.

According to CPO representatives, hiring knowledgeable acquisition staff has been difficult due to a limited pool of qualified acquisition professionals and intense competition between the government and the private sector for those professionals.<sup>36</sup> The CPO has the following ongoing departmentwide initiatives to recruit, train, and define its acquisition workforce that have the potential to better position DHS to address acquisition workforce challenges. These include:

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<sup>35</sup> GAO-08-508T.

<sup>36</sup> We have ongoing work on DHS's acquisition workforce and plan to report on these issues in the final product for that engagement.

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- centralize recruiting activities across the department;
- institute an acquisition intern program;
- employ direct hire authority<sup>37</sup> and rehire annuitants;<sup>38</sup>
- reemphasize training opportunities and establishing a centralized acquisition workforce training fund; and
- conduct workforce planning.

The need for improved collaboration among the acquisition workforce is also a recurrent theme in our work on acquisition management. We have noted that acquisition groups should have procedures in place that empower staff to collaborate when procuring goods and services and have controls and incentives to ensure collaboration occurs.<sup>39</sup> In particular, leading organizations generally employ a multifunctional approach including contracting, finance, legal, and other participants as needed to help develop cost-effective acquisition approaches and help ensure financial accountability. When requirements are dynamic, as was the case for some of the investments we studied, there is a greater need for more sophisticated collaboration—a point echoed by CBP and TSA representatives who emphasize the importance of early collaboration for complex acquisitions. OFPP guidance also emphasizes that performance-based service acquisition is a collective responsibility involving representatives from budget, technical, contracting, logistics, legal, and program offices.

For the eight major investments we reviewed, program and contracting offices jointly approved the acquisition plans, and representatives for several of the contracts we studied indicated they worked together effectively. However, at the component level, senior acquisition staff at

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<sup>37</sup> Services Acquisition Reform Act of 2003, Div. A, Title XIV, National Defense Authorization Act for Fiscal Year 2004, Pub. L. No. 108-136, § 1413 (2003) allowed federal agencies to exercise direct hire authority in accordance with regulations issued by the Office of Personnel Management. This authority was extended to September 30, 2012, by the National Defense Authorization Act for Fiscal Year 2008, Pub. L. No. 110-181, Div. A, Title VIII, § 853 (2008).

<sup>38</sup> General Services Administration Modernization Act, Pub. L. No. 109-313, § 4 (2006) granted agency heads authority, in consultation with the OPM and OFPP, to approve reemployment of annuitants in fields related to acquisition management.

<sup>39</sup> GAO-05-218G.

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TSA and CBP indicated that collaboration between contracting and program offices in general has been challenging. For example, they cited poor timing when bringing together key stakeholders in the contracting process, and in some cases, the program offices' preference for prescriptive requirements rather than a more outcome-oriented approach. Coast Guard and TSA acquisition representatives we spoke with indicated they have ongoing efforts to promote greater collaboration.

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## Limited Data Inhibits DHS's Ability to Oversee Its Service Acquisitions

While DHS contracting and program representatives told us they use a performance-based approach to the maximum extent practicable, DHS does not have reliable data, either from FPDS-NG or at a departmentwide level, to systematically monitor or evaluate service acquisitions, including those that are performance-based acquisitions. Reliable data are essential to overseeing and assessing the implementation of contracting approaches, acquisition outcomes, and making informed management decisions.

Our review of 138 contracts at the Coast Guard, CBP, ICE, and TSA coded in FPDS-NG as performance-based illustrates the difficulty in identifying such contracts.<sup>40</sup> According to contracting representatives at the Coast Guard, CBP, ICE, and TSA, only 42, about 30 percent, of these contracts could be confirmed as containing the required performance-based elements—a performance work statement, measurable performance standards, and a method of assessing contractor performance against performance standards. About 18 percent had some but not all of the required performance-based acquisition elements, and about 51 percent—totaling about \$347.3 million—had none of the required elements (see table 3). This analysis indicates that the FPDS-NG data are not reliable for reporting on the performance target for eligible service obligations. For example, in fiscal year 2006, DHS reported awarding performance-based contracts for 21 percent of eligible service contract dollars. However, due to unreliable data, DHS is likely farther away from meeting the governmentwide target than previously reported. In addition, in July 2006 OFPP requested all agencies to report in their 5-year management plan on the use of performance-based contracts by service types—ranging from basic, such as janitorial and landscaping, to complex, such as information technology or systems development. The Acquisition Advisory Panel and

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<sup>40</sup>The 138 contracts were awarded in fiscal years 2005 or 2006 with obligations greater than \$1 million, totaling about \$1.3 billion.

DHS's CPO also have raised concerns regarding the accuracy of the performance-based designation in FPDS-NG. The Acquisition Advisory Panel reported from its review at 10 federal agencies that 42 percent of the performance-based contracts it reviewed had been incorrectly coded.<sup>41</sup>

**Table 3: Review of Performance-Based Elements on Selected Contracts**

Performance-based elements	Coast Guard	Customs and Border Protection	Immigration and Customs Enforcement	Transportation Security Administration	Total contracts	Percent of total contracts
All elements	18	3	0	21	42	30.4
Some elements	16	0	5	4	25	18.1
No elements	20	5	34	12	71	51.5
<b>Total</b>	<b>54</b>	<b>8</b>	<b>39</b>	<b>37</b>	<b>138</b>	<b>100</b>

Source: GAO analysis of DHS review of 138 contracts coded as performance-based in FPDS-NG.

According to DHS contracting representatives, contracts were miscoded as performance-based for several reasons. Contracting staff may have coded contracts as performance-based without the presence of the required elements. Contracting staff also may not have followed data validation procedures. Finally, there are technical FPDS-NG issues. For example, DHS contracting and program staff said FPDS-NG automatically applies the same designation to all orders issued under the master contract although some individual orders may or may not be performance-based.<sup>42</sup> While DHS officials acknowledged this can occur, they stated that the data field in FPDS-NG could still be edited for orders issued under the master contract and that it was incumbent on DHS contracting representatives to review the designation for every contract action to ensure they are coded correctly.

Inaccurate federal procurement data is a long-standing governmentwide concern. Our prior work and the work of the General Services Administration's Inspector General have noted issues with the accuracy

<sup>41</sup>Report of the Acquisition Advisory Panel to the Office of Federal Procurement Policy and the United States Congress, January 2007.

<sup>42</sup>Known as Indefinite Delivery Indefinite Quantity (IDIQ) contracts, these contracts provide for an indefinite quantity of supplies or services within stated limits during a fixed period of time. The government places orders for individual requirements.

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and completeness of FPDS and FPDS-NG data.<sup>43</sup> The Office of Management and Budget has stressed the importance of submitting timely and accurate procurement data to FPDS-NG and issued memos on this topic in August 2004 and March 2007.

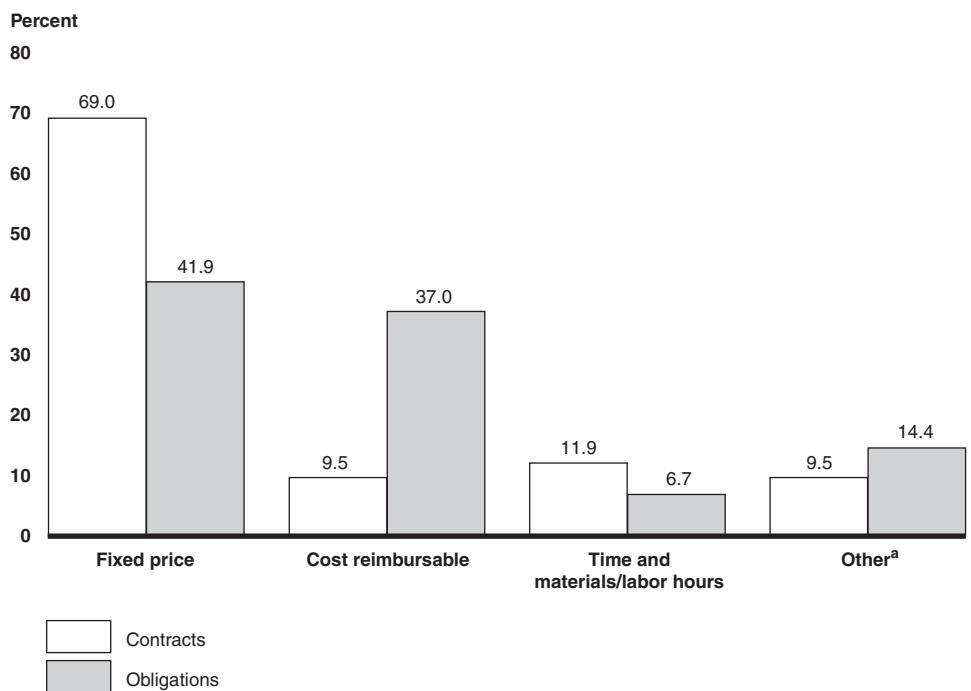
Accurate FPDS-NG data could facilitate the CPO's departmentwide oversight of service acquisitions, including those that are performance-based. For example, the selection of a contract type is the principal means agencies have for allocating financial risk between the government and the contractor. For performance-based services, federal law establishes a preference for using firm fixed-price as opposed to cost reimbursable or time and materials contracts.<sup>44</sup> In addition, the CPO has instructed components to avoid using time-and-material contracts for services. We reviewed the contract type for the 42 contracts DHS confirmed were performance-based. Our analysis showed that DHS awarded about 70 percent of these 42 contracts as fixed-price; these actions represented about 42 percent of total obligations for these awards. About 37 percent of total obligations were awarded as cost-reimbursable, and 7 percent were awarded as time and materials contracts (see fig. 1).

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<sup>43</sup> GAO, *Reliability of Federal Procurement Data*, GAO-04-295R (Washington, D.C.: Dec. 30, 2003); GAO, *Improvements Needed to the Federal Procurement Data System-Next Generation*, GAO-05-960R (Washington, D.C.: Sept. 27, 2005); and General Services Administration Inspector General, *Review of the Federal Procurement Data System-Next Generation (FPDS-NG)*, Report Number A040127/O/T/F06016 (March 2006).

<sup>44</sup> For fixed price contracts, a specified price is paid regardless of the contractor's costs, minimizing the financial risk to the government. For cost reimbursable and time and materials contacts, the government generally assumes the risk of cost overruns. For example, cost reimbursable contracts provide for the government to pay reasonable, allowable and allocable costs incurred by the contractor up to the contract's price ceiling. Time and materials contracts provide for acquiring services on the basis of fixed costs for labor hours and materials at the stated contract ceiling price. In time and materials contracts, if services delivered do not meet contract requirements and the government exercises its right to have the contractor correct the deficiencies, the government pays the additional labor and material costs to do so, excluding profit.

**Figure 1: Percent of Contracts and Obligations by Contract Type for 42 DHS Performance-Based Service Acquisitions (Fiscal Years 2005 and 2006)**



Source: GAO analysis of DHS confirmed performance-based service acquisitions.

<sup>a</sup>“Other” includes contracts for which the contract type field in FDPS-NG was blank, designated as being none of the contract types listed within FPDS-NG, or coded with more than one contract type.

At a departmentwide level, CPO representatives responsible for acquisition oversight indicated they have not conducted systematic assessments including costs, benefits, and other outcomes of a performance-based approach. To improve the implementation of performance-based acquisitions, CPO representatives established a work group in May 2006 to leverage knowledge among DHS components. They also noted that they are working with OFPP to develop a best practices guide on measurable performance standards and to gather good examples of performance-based contracts. In addition, the CPO has implemented a departmentwide acquisition oversight program that is intended to assess (1) compliance with federal acquisition guidance, (2) contract administration, and (3) business judgment. This program was designed with the flexibility to address specific procurement issues, such as

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performance-based service acquisitions, and is based on a series of component-level reviews.<sup>45</sup> However, this oversight program has not yet included an evaluation of the outcomes of this acquisition method.

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## Conclusions

As part of its expansive homeland security mission, DHS spends billions of dollars on service acquisitions for critical trade, transportation, and border security investments. Consistent with federal procurement policy, DHS has emphasized a performance-based approach to improve service acquisition outcomes. However, in keeping with our prior findings, DHS's designation of a service acquisition as performance-based was not as relevant as the underlying contract conditions. Sound acquisition practices, such as clearly defining requirements; establishing complementary measurable performance standards; and planning and conducting surveillance in order to take corrective actions are all hallmarks of successful service acquisitions. In the cases we reviewed, as well as in prior findings lacking these key elements, DHS did not always achieve successful acquisition outcomes. To improve DHS's acquisition management, the CPO is taking steps to address departmentwide workforce and oversight needs. However, improved data accuracy and systematic evaluation of contracting methods and outcomes are also key to successful oversight efforts. Continued emphasis on these areas is required to prevent less than expected acquisition outcomes for the department's critical mission.

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## Recommendations for Executive Action

To increase DHS's ability to achieve improved outcomes for its service acquisitions, including those that are performance-based, we recommend that the Secretary of Homeland Security implement the following three actions:

- routinely assess requirements for major, complex investments to ensure they are well-defined and develop consistently measurable standards linked to those requirements;
- at a departmentwide level, systematically evaluate the outcomes of major investments and relevant contracting methods; and

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<sup>45</sup> GAO-07-900.

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- continuously improve the quality of FPDS-NG data to facilitate the ability to accurately identify and assess the use and outcomes of various contracting methods.

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## Agency Comments and Our Evaluation

We provided a draft of this report to DHS and OMB for review and comment. In written comments, DHS generally concurred with our findings and recommendations and provided some information on efforts under way to improve acquisition management. The department's comments are reprinted in appendix II. OMB did not comment on the findings or conclusions of this report. DHS and OMB each provided technical comments, which we incorporated as appropriate and where supporting documentation was provided.

In response to our recommendations that DHS (1) routinely assess requirements for major, complex investments to ensure they are well-defined, and develop consistently measurable standards linked to those requirements, and (2) systematically evaluate the outcomes of major investments and relevant contracting methods, DHS stated that the CPO is working to strengthen acquisition and procurement. For example, DHS noted that the CPO is revising the investment review process; reviewing major programs and investments; and building the capability to manage complex efforts by ensuring program offices are properly structured and staffed with the right people and skills. To assist in accomplishing these goals, DHS noted that the CPO has established a new division to provide oversight and support for acquisition programs. We have ongoing work at DHS reviewing the results of DHS's oversight of major acquisitions and plan to report on these initiatives in the final product for that engagement. Improving acquisition management has been an ongoing challenge since the department was established and requires sustained management attention. However, DHS's response did not address how the CPO's process and organizational changes will impact component-level management and assessment of complex acquisitions to improve outcomes.

Concerning the third recommendation, that DHS continuously improve the quality of FPDS-NG data to facilitate the ability to accurately identify and assess the use and outcomes of various contracting methods, DHS stated that as part of the CPO's oversight reviews, the accuracy of the FPDS-NG data is validated for the review sample, including whether contracts have been properly coded as performance-based. DHS also added that the CPO is an active member of the OFPP group working to improve FPDS-NG and has established a governance board whereby the CPO reaches out to DHS

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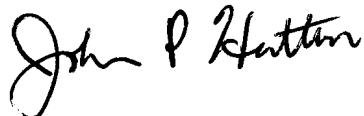
components to improve data collection. While these initiatives may be steps in the right direction, DHS's response did not present the results of the oversight reviews, or state how these coordination efforts address the causes of miscoding or how they will improve the quality of FPDS-NG data in the future.

DHS also noted other initiatives to improve the acquisition workforce, including working to obtain qualified acquisition professionals and conducting staffing studies to better define the department's needs. We also have ongoing work at DHS on the acquisition workforce and plan to report on the results of DHS's efforts in the final product for that engagement.

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As agreed with your offices, unless you publicly announce the contents of this report, we plan no further distribution for 30 days from the report date. At that time, we will send copies of this report to the Secretary of Homeland Security, the Director of the Office of Management and Budget, and other interested congressional committees. We will also make copies available to others upon request. In addition, this report will also be available at no charge on GAO's Web site at <http://www.gao.gov>.

If you have questions about this report or need additional information, please contact me at (202) 512-4841 or [buttonj@gao.gov](mailto:buttonj@gao.gov). Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report.



John P. Hutton, Director  
Acquisition and Sourcing Management

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# Appendix I: Scope and Methodology

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To evaluate selected Department of Homeland Security (DHS) components' implementation of a performance-based approach in the context of service acquisitions for major investments, we conducted a detailed file review of eight judgmentally selected performance-based contracts for major, complex investments with a total value greater than \$100 million.<sup>1</sup> To identify the components with the highest obligations using a performance-based approach in fiscal years 2005 and 2006, we used the Federal Procurement Data System-Next Generation (FPDS-NG) and selected four components—Coast Guard, Customs and Border Protection (CBP), Immigration and Customs Enforcement (ICE), and the Transportation Security Administration (TSA).<sup>2</sup> We excluded the Federal Emergency Management Agency (FEMA) from our review because of atypical fiscal year 2006 spending on Gulf Coast hurricane relief efforts.

To identify contracts for major investments, we utilized several different approaches.<sup>3</sup> Three issues required us to modify our plans—the lack of information in FPDS-NG, inaccurate DHS contracting data on major investments, and inaccurate information provided by one DHS component. Because the FPDS-NG major program field was typically blank, we were unable to use this field to identify contracts associated with DHS major investments. As a result, we asked DHS to provide us with a list of performance-based contracts associated with the four components' major investments. DHS provided a list including 76 contracts for 16 major investments. Due to data inaccuracies related to the contract numbers on DHS's list, we were only able to identify performance-based contracts associated with two major investments. We selected one contract from CBP's Automated Commercial Environment and one from TSA's Secure Flight that had the highest obligations. To obtain additional contracts to review, we met with CBP and TSA contracting representatives and they identified five other major investments with performance-based contracts, and we included one from each investment in our review. Coast Guard

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<sup>1</sup>DHS has categorized major investments as Levels 1 and 2 and Level 3 (information technology). For the purposes of our review, we focused on Level 1 investments. A Level 1 major investment is defined in DHS Management Directive 1400 as an investment with greater than \$100 million in total acquisition costs including planning, or for information technology investments, a life-cycle cost greater than \$200 million.

<sup>2</sup>During our review TSA was exempt from the FAR and followed the Acquisition Management System, developed by the Federal Aviation Administration, which included acquisition policy providing that service contracts should incorporate performance-based contracting methods.

<sup>3</sup>We selected eight major investments and reviewed either a performance-based contract or selected orders on a performance-based contract associated with each investment.

contracting representatives told us none of their major investments used performance-based contracts. However, we randomly selected and reviewed four contracts and seven orders at the Coast Guard from DHS's list of major investments, and found that five of them were performance-based. Of these, we selected three performance-based orders from one contract for one major Coast Guard investment—the Response Boat-Medium—to include in our review. Lastly, ICE contracting representatives also reported that none of their major investments used a performance-based approach and provided us with their best examples of a performance-based contract. We reviewed these examples and found that none of them were associated with a major investment. As a result, we excluded ICE from our contract review.

For the selected contracts, with a combined estimated value of \$1.53 billion, we reviewed documentation, including acquisition plans, performance work statements and statements of objectives, quality assurance surveillance plans, and government or contractor performance reports where available. Performance-based service acquisitions were difficult to identify and were not clearly distinct from other service acquisitions because they did not always include all required elements. Therefore, we reviewed prior GAO and DHS Inspector General reports to provide a broader context for service acquisition and other DHS major investments. We reviewed public laws, federal and agency acquisition regulations, and the Office of Management and Budget's Office of Federal Procurement Policy (OFPP) memoranda and best practices. We also interviewed procurement and program representatives to determine the extent to which the performance-based planning process influenced expected outcomes.

To identify management challenges that may affect DHS's successful implementation of service acquisitions for major investments, including those that use a performance-based approach, we analyzed management documents and plans; staffing data; and oversight mechanisms, including the Federal Procurement Data System-Next Generation (FPDS-NG), the governmentwide database for procurement spending. From FPDS-NG, we judgmentally selected 138 contracts for primarily basic services coded as performance-based and awarded in fiscal years 2005 or 2006 at Coast Guard, CBP, ICE, and TSA with obligations greater than \$1 million dollars and asked the components to verify whether these contracts included the required performance-based elements outlined in FAR subpart 37.6. Finally, we interviewed contracting and program management staff and DHS Chief Procurement Office (CPO) representatives and met with representatives from the Office of Management and Budget's Office of Federal Procurement Policy (OFPP). To evaluate the extent to which DHS used

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different contract types for performance-based acquisitions, we reviewed the contract type on all contracts DHS verified as performance-based.

We conducted this performance audit from January 2007 to April 2008 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

# Appendix II: Comments from the Department of Homeland Security

US Department of Homeland Security  
Washington, DC 20528



**Homeland Security**

April 11, 2008

Mr. John P. Hutton  
Director  
Acquisition and Sourcing Management  
U.S. Government Accountability Office  
441 G Street, NW  
Washington, DC 20548

Dear Mr. Hutton:

Thank you for the opportunity to review and comment on the Government Accountability Office's (GAO's) draft report GAO-08-263 entitled *DEPARTMENT OF HOMELAND SECURITY: Better Planning and Assessment Needed to Improve Outcomes for Complex Service Acquisitions*. Technical comments have been provided under separate cover.

The Department of Homeland Security (DHS) generally concurs with the findings and recommendations in the draft report and offers the following with respect to the report's three recommendations:

**GAO Recommendation #1:** Routinely assess requirements for major, complex investments to ensure they are well-defined and develop consistently measurable standards linked to those requirements.

**GAO Recommendation #2:** At a department-wide level, systematically evaluate the outcomes of major investments and relevant contracting methods.

**DHS Response to Recommendations #1 and #2:** DHS is in the midst of many crucial acquisitions that are vital to its success. The Chief Procurement Officer (CPO) is working to strengthen acquisition and procurement by institutionalizing solid processes, including the following actions:

- A. Strengthening the requirements and investment review processes by improving the joint requirements council and Investment Review Board (IRB) process. We are preparing to initiate a new Department-wide requirements process and have reinvigorated our investment review process;
- B. Reviewing the major programs and investments to ensure that the requirements are clear, cost estimates are valid, technology risks are properly assessed, schedules are

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realistic, contract vehicles are proper, and the efforts are well managed. We have held one formal Deputy Secretary IRB and are projecting one per month. We are also beginning the processes to conduct paper IRBs and Deputy UnderSecretary for Management IRBs, as well as establishing Acquisition Program Baselines (APBs) and authorizing execution to the APB for all Level 1 and 2 programs;

- C. Building the capability to manage complex efforts by ensuring that program offices are properly structured and staffed with the right people and skills to ensure efficient and effective program management and oversight; and to aggressively hire where we have known shortages; and
- D. Examining best practice metrics in use by other departments with the intent to start implementation this year.

The Acquisition Program Management Division (APMD) of the Office of the Chief Procurement Officer (OCPO) began operations in August 2007. The division was established to provide oversight and support for acquisition programs. To date, APMD has performed Quick Look assessments of 37 Level 1 programs and has overseen Deep Dive reviews of the SBInet and Advance Spectroscopic Portal (ASP) programs. APMD has provided advice and guidance to a number of programs, particularly in the area of cost benefit analysis. Currently the APMD team is focused on an aggressive Investment & Acquisition process re-engineering effort. The effort includes replacing DHS Management Directive 1400 Investment Review Process, establishing revised investment and acquisition decision procedures, as well as processes for acquisition program baselining, periodic reporting, acquisition of services, and other initiatives as they are identified.

CPO is also working to assure that DHS obtains qualified acquisition professionals at the right time with the right skill-set. Competition for these professionals is intense within the Washington, D.C. area. To resolve our personnel shortages, we are intensifying our human capital planning efforts to minimize skill and competency gaps as well as minimize our critical vacancies and reliance on contractors. For example, in response to the OMB 1102 Contracting Workforce Competency Gap Survey, we developed a training plan that spans the next three years. This training plan targets the contracting functional area within the DHS Acquisition Workforce, but it will also benefit other acquisition career fields including program management and Contracting Officer's Technical Representatives.

CPO is also currently conducting staffing studies to better define our acquisition workforce needs. Currently our workforce includes program managers and contract specialists. As part of our human capital planning efforts, we will be identifying other required acquisition career fields such as test and evaluation, systems engineering, logistics, and cost estimating. We are aggressively working to ensure that each acquisition position, upon definition, is encumbered by an acquisition professional trained and certified at the appropriate level. To this end, we are continuously reviewing and updating our Acquisition Training Program, the underpinning of a good certification

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**Appendix II: Comments from the Department  
of Homeland Security**

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program. We are utilizing the Defense Acquisition Workforce Improvement Act framework to develop DHS certification standards. We have also centralized a number of recruiting activities including issuing Department-wide vacancy announcements. Our centralized recruitment efforts to date have focused primarily on contracting professionals. Expansion to other acquisition career fields will occur as each series is defined and Department-wide needs are identified. This initiative supplements our Components' on-going recruitment efforts with a goal of recruiting the best candidates available. In 2005, the Department commenced the Acquisition Fellows Program. The goal of the Fellows Program was to attract new talent at the entry level into our acquisition positions, and retain and train them through a professional career development program. Building on the success of the Acquisition Fellows Program, CPO formalized and modeled it to further resemble the highly successful Department of Defense program. This year CPO received funding for the Acquisition Professional Career Program and 33 of the requested 66 positions were funded. In FY 2009, the plan provides for a total of 100 positions to be funded. Our inaugural class in the Acquisition Professional Career Program began in January 2008 and a second class will begin in June 2008. Our goal is to grow this program to 300 positions by FY 2011 to fill our critical acquisition positions.

**GAO Recommendation #3:** Continuously improve the quality of Federal Procurement Data System-Next Generation (FPDS-NG) data to facilitate the ability to accurately identify and assess the use and outcomes of various contracting methods.

**DHS Response to Recommendation #3:** As part of CPO's oversight reviews, the accuracy of the FPDS data is validated for the review sample, including whether the contract has been properly coded as a performance based contract. In addition, OCPO is an active member of the Office of Federal Procurement Policy group that is working to improve FPDS. OCPO has also established a Governance Board whereby CPO reaches out to the DHS Components to improve data collection.

Thank you again for the opportunity to comment on this draft report and we look forward to working with you on future homeland security issues.

Sincerely,



Penelope G. McCormack  
Acting Director  
Departmental Audit Liaison Office

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# Appendix III: GAO Contact and Staff Acknowledgments

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## GAO Contact

John Hutton, (202) 512-4841, or [huttonj@gao.gov](mailto:huttonj@gao.gov)

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## Staff Acknowledgments

In addition to the individual named above key contributors to this report were Amelia Shachoy, Assistant Director; Don Springman; Jeffrey Hartnett; Sean Seales; Alex Winograd; Karen Sloan; Julia Kennon; Lynn Milan; Art James; Marie Ahearn; and Kenneth Patton.

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